Chapter IV - Secondary Mission Assignments

In addition to its major missions – debris removal, mobile home site preparation and mini-repair – Susquehanna District had others not so grand but of none the less crucial importance to disaster recovery. Three such tasks were temporary bridging, public utility repair and project application support.

TEMPORARY BRIDGING

Tropical Storm Agnes destroyed more than 200 bridges in New York and Pennsylvania, and the Corps of Engineers was called upon to help replace the most critical of them. Demonstrated inability to do the work on the part of state and local governments and proof that a real threat to safety, health or the economy existed were required before Corps intervention. Where feasible the Corps erected temporary crossings utilizing corregated pipes, but engineering requirements sometimes necessitated more sophisticated bridging or prohibited a temporary solution altogether.[1]

Initial mission assignments for temporary bridging came from the Office of Emergency Preparedness when Baltimore District was still handling the Corps' response in the Susquehanna River basin, but most of the work was accomplished by the Susquehanna District. Arrangements were eventually made between the district and the departments of transportation in Pennsylvania and New York covering the installation, financing, maintenance and removal of the bridges. The agreement for Pennsylvania, signed on 25 July, made the Engineers responsible for delivery, erection and removal of the bridges. The state was to provide necessary land and maintenance.

The entire operation was another area of disaster recovery activities requiring close coordination between the Corps and state and federal officials. To assist the liaison officer, Captain Boyd D. Ashcraft of the U.S. First Army, 76th Engineer Battalion, was brought to the district as bridge coordinator. Since all elements in the Corps' chain of command were vitally interested in Susquehanna District's accomplishments, a significant part of the bridge coordinator's job was submitting reports to higher headquarters.

For temporary bridging, the Corps generally utilized U.S. Army Bailey-type bridges. Stored in Army depots around the country, Bailey bridges are used primarily to provide temporary crossings during times of war. The structures have the advantage of mobility and versatility. The bridge is mobile because it comes in sections that are easily transported, and versatile because the same standard parts can be designed to carry a variety of loads depending on expected traffic. Bailey bridge sections were readily obtained through the U.S. Army Mobility Equipment Command (MECOM) from the Marion Army Depot, Marion, Ohio. They had one additional advantage: they could be rapidly constructed.

The Pennsylvania Department of Transportation proposed sites for temporary bridges to the

Corps after which an inspection was conducted to determine feasibility. Deciding to go ahead with a project was not always easy. There were a multitude of considerations from the geography of the site and community need to the length of existing detours.

In cases of disagreement or complicated alternatives, meetings were held between officials of the Corps, the Federal Highway Administration and the Pennsylvania Department of Transportation. As a result, not every proposed bridge was built. A case in point was Pennsylvania's desire to have a bridge erected at Keating in Clinton County. District personnel felt it more practical to use a nearby railroad bridge than to erect a Bailey – a move that would save $160,000.[2] State officials found this solution unsatisfactory. An impasse resulted, and the Engineers never put up a temporary bridge at the site.

Altogether Susquehanna District let contracts for 15 Bailey bridges – 14 in Pennsylvania and one in New York. Largest of the bridges was the 470-foot span placed over the Chemung River in Elmira. Engineers accomplished the feat in just 22 days. The district utilized technical advisors from the 76th Engineer Battalion to supervise the construction. Once erected, temporary Bailey bridges were turned over to the state for maintenance. Most problems associated with the mission arose in that area.

Susquehanna District voiced repeated concern when inspections revealed sagging braces, loose clamps and missing safety pins in completed structures.[3] An inspection tour in mid-September led the Sunbury Area Office to conclude that maintenance was "being conducted by individuals which do not understand how their actions effect the life of the bridge."[4] In fairness it should be noted that the whole situation was aggravated by the lack of clearly defined responsibility. Still, Susquehanna District employees spent considerable time attempting to keep abreast of problems for which they were technically not responsible.

One bridge failure occurred early in Susquehanna District's operations, but the incident was not related to maintenance or construction. The Orangeville Bridge in Columbia County, Pa., completed 23 July and turned over to the state the following day, collapsed on the 26th under the weight of a tractor-trailer loaded with animal feed. The bridge buckled under weight nearly double its capacity. A bridge in Sunbury was also truck-damaged but did not collapse. As a result, the Susquehanna District launched a concerted campaign to warn residents in the disaster area of the dangers posed by the temporary spans. In September the Corps, acting at the request of the state, replaced the Orangeville span.

Agnes' raging floodwaters destroyed the five-span bridge over the Susquehanna at Laceyville, but the length of the crossing presented too difficult and expensive an engineering problem for a temporary Bailey bridge. Instead a four-float raft propelled by two 27-foot bridge erection boats was brought from Fort Belvoir, Va., and elements of the U.S. First Army, 11th Engineer Battalion, were deployed to man the operation.

The raft would be needed for at least one and one-half years, but the Army wanted Pennsylvania's Department of Transportation to take it over as soon as possible. Corps of Engineers personnel involved in trying to effect a transfer of responsibility for the rafting operation cited the high cost of maintenance, fuel and temporary duty pay.[5] By 10 August Colonel Charles E. Eastburn, the district liaison officer, was strongly recommending that the Army establish a definite cut-off date for the ferry service as a means of jarring the state into action. A group of local citizens even tried to acquire a raft they could maintain themselves but failed.[6] Interest of Congressman Joseph McDade of Pennsylvania's 10th District apparently was largely responsible for continuation of the rafting operation under military auspices. Ultimately the raft at Laceyville remained under Army supervision from 1 July to 15 November, during which time over $25,000 was expended.

Dismantling the temporary bridges and returning the sections for reuse in other disasters or time of war was costly. The average expense per bridge was $20,000, and the Corps estimated that Fishing Creek Bridge at Orange-

ville would run as high as $34,000.[7] Transportation for each set of bridging from anywhere in Pennsylvania to the Marion Depot was another cost factor. By 1 September 1974 only four of the 15 bridges erected by Susquehanna District had been removed. Corps personnel in the Harrisburg Resident Office, Baltimore District, were given responsibility for coordinating the task after 30 November 1972.

PUBLIC UTILITY REPAIR

The Susquehanna District helped out again in cases where public utilities – water supply and sewage collection and treatment facilities – were damaged beyond capabilities of local government to make repairs in a reasonable period of time. OEP tasked SED to make repairs on the Tunkhannock Dam, northeast of Wilkes-Barre, on the DeHart Dam, controlling Harrisburg's central water supply, and on scattered water facilities where real emergency situations prevailed, but most of the 184 water systems damaged in Pennsylvania were repaired without Corps assistance. Sewage plants on the other hand presented a greater challenge, particularly in Harrisburg and in Luzerne County, where approximately $2.9 million was committed. The district took over the largest project, the restoration of the Wyoming Valley Sanitary Authority, and carried on until 1 September, when the facility was partially operational and OEP terminated Corps responsibilities. Involvement of the Engineers was vital as the Wyoming Valley plant served 14 municipalities, collected waste from 19 pumping stations, and was serviced by 35 miles of sewer line. Not only the main treatment plant but also most of the pumping stations were flooded. High water from the Susquehanna washed one station completely away.

Relatively late in the Susquehanna District mission, OEP asked the Corps to restore the standby water-treatment filtration system and water pumping station on City Island and at Front and North Streets in Harrisburg. This was one case where the Engineers returned a request to OEP with the suggestion that the work would be better accomplished through a project application from Harrisburg. The Corps' decision came after an inspection by the Harrisburg area engineer and his assistant determined that the system, which was not the state capital's primary source of water, was too

antiquated to repair. A major factor was the indeterminate cost: an original damage survey report had already been revised by nearly 200 percent.[8] The area engineer thus recommended that the city replace the facility rather than attempt to repair it, and OEP subsequently withdrew the request.

The district engineer thought this episode a good example of how the federal government put engineering advice from the Corps to good use in making decisions related to disaster recovery. In Colonel McElhenny's words: "OEP never tried to override us if we did not feel we should do something."[9]

PROJECT APPLICATION SUPPORT

The Disaster Relief Act of 1970, Public Law 91-606, included project application provisions enabling local communities to contract flood-related repair work themselves and be reimbursed by the federal government so long as the expenditure was approved in advance by OEP. Roadwork, drainage facilities and debris removal were the major work categories for which applications were made.

When necessary to give local communities the financial capability to proceed, OEP made advance payments of 75 percent. The remainder was presented after final inspection of the completed project and an audit. The key to success in this OEP program was speed. To achieve it, OEP turned to the Army Corps of Engineers.

The Corps was tasked to process advance and final payments, and to perform interim and final inspections and audits. Initially Corps involvement was limited to applications of $50,000 or less. In Pennsylvania, Corps responsibility included applications for projects within the jurisdiction of the Pittsburgh Engineer District. In New York, applications were channeled through the Elmira Area Office before coming to the Susquehanna District office. Elmira had its own project application section.

Recognizing the potential magnitude of this mission, SED established a project application section in the construction branch of the operations division. All approved applications for Pennsylvania and New York flowed from OEP through this section. Thereafter close interaction with SED's fiscal branch was a necessity: the goal for processing advance payments was 24 hours.

The district processed its first project application on 23 July and made the first advance payment on 10 August. At the outset the workload was light, so the section took the opportunity to refine and consolidate its procedures. The move paid off. When district involvement with the program reached its height in September, the project application section processed 106 applications and disbursed 71 advance payment checks in one 24-hour period.

On 18 August 1972, OEP broadened the mission to include advance payments for applications over $50,000. In Colonel McElhenny's view, the reason for the change was clear: it took OEP two weeks to process payments through Washington, and the Corps was doing it much faster in Harrisburg. "It didn't make much difference what the amount was, you still wrote the same check."[10]

As SED prepared to close out its project application capability near the end of October, it recorded 1193 advances on projects under $50,000 totaling $10,515,181 and 368 advances on projects over $50,000 totaling $38,467,021. District Engineer McElhenny felt later on that the Corps' role in project application advance payments was a high point of the Agnes mission. In his words:

> Getting money out to small communities, townships and boroughs rapidly made them feel a lot more confident and showed them the government was trying to respond promptly and effectively.[11]

To dramatize the concern of the federal government and at the instigation of Presidential representative Carlucci, advance payment checks were sometimes publicly presented to applicants by the district engineer and a representative of OEP.

Inspections and audits were another matter. Since there was no way applicants could com-

plete work on their projects within the anticipated lifespan of the Susquehanna District, it was expected that inspections and audits would later need to be transferred to one of the permanent districts. Yet, while SED existed, the inspection task alone was substantial. Final inspections were required for every damage survey report – and there were ten on average – accompanying a project application. In addition, interim inspections were conducted on some projects as work proceeded. Inspections were handled by the district office or the appropriate area office, a situation requiring close district-area office interaction and at times overburdening their staffs. In accordance with a decision reached when SED was established, audit responsibilities were handled by Philadelphia District. Additional support in this area came from the North Atlantic Division.

As with other disaster programs, there were problems encountered by the Corps in administering project applications. In some cases supplements were necessary if the contractors' bids, including the lowest, exceeded previously approved funds; in other cases, approved amounts later had to be reduced because of unjustifiable labor rates, excessively high unit price costs, or inclusion of ineligible work items.[12]

Some confusion developed when it was discovered that a few project applications included reimbursement claims for work actually accomplished by the Corps. The situation arose when Corps area offices took over a contract already let by a local community. When the job was done, the community involved submitted a project application asking reimbursement for its part of the work, but the percentage it had actually accomplished was not always accurately determined. When OEP and the Engineers realized what was happening, the district liaison officer became involved in recurring efforts to avoid this predicament through coordination with OEP and project applicants.[13]

In mid-October selected Philadelphia District personnel began on-the-job training in project application procedures prior to transfer of SED's capability to their home district. That occurred on 29 October. Management of project application responsibilities first taken on by the Susquehanna District was still being handled by Philadelphia in 1974. Division Engineer Groves assigned responsibility for applications still pending in New York State to the New York Engineer District as of 25 October 1972.

PL 91-606 MISSION ESTIMATES[a]

(Thousands of Dollars)

	Category of Work	Area 1 Towanda	Area 2 Wilkes-Barre	Area 5[b] Harrisburg	Area 8 Reading	Pennsylvania Subtotal	Area 9 Elmira	District Total
1.	Debris Removal	1,790	19,500	5,592	5,052	31,934	6,566	38,500
2.	Water Plants	0	27	230	0	257	0	257
3.	Sewage Plants	4	1,553	1,190	180	2,927	0	2,927
4.	Roads and Bridges	40	0	625	67	732	168	900
5.	Mobile-Home Sites	146	20,400	3,926	215	24,687	7[c]	24,694
6.	Other Public Facilities	0	928	1,029	0	1,957	92	2,049
7.	Dikes and Levees	20	0	563	0	583	58	641
8.	Miscellaneous	16	470	250	0	736	66	802
9.	Mini-Repairs	10	8,900	95	5	9,010	2,629	11,639
	Total	2,026	51,778	13,500	5,519	72,823	9,586	82,409

[a]Data from situation report of 28 November
[b]Includes expenditures of Areas 3, 4, 6, and 7
[c]Includes design costs for a site not constructed